



Docket No.: SOA-0472  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
David H. Bessel

Application No.: 09/826,198

Confirmation No.: 2595

Filed: April 4, 2001

Art Unit: 2421

For: METHOD AND APPARATUS FOR LEGACY  
ANALOG VIDEO INTERCONNECTIONS IN A  
TOP BOX FOR PERSONAL VIDEO RECORDING  
APPLICATIONS

Examiner: Christopher L. Parry

**APPEAL BRIEF**

MS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is an Appeal Brief under 37 C.F.R. § 41.37 appealing the Office Action of the Examiner dated November 24, 2009. This Brief is also in furtherance of the Notice of Appeal previously filed on February 24, 2010. Appellant has separately provided herewith a petition to revive the application for unintentional abandonment.

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This brief contains items under the following headings as required by 37 C.F.R. § 41.37  
and M.P.E.P. § 1206:

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I. REAL PARTY IN INTEREST

The real party in interest for this appeal is Sony Corporation, of Tokyo, Japan, and Sony Electronics, Inc., of Park Ridge, New Jersey. An assignment of all rights in the present application to Sony Corporation was executed by the inventor and recorded by the United States Patent and Trademark Office at Reel 011685, Frame 0847.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings that will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

### III. STATUS OF CLAIMS

#### III.A. Current Status of Claims

A complete listing of the claims with corresponding status is provided as follows:

Claim 1. (Rejected)

Claim 2-4. (Cancelled)

Claim 5. (Rejected)

Claim 6. (Cancelled)

Claim 7-11. (Rejected)

Claim 12-27. (Cancelled)

Claim 28-34. (Rejected)

#### III.B. Claims On Appeal

Appellant hereby appeals the final rejection of claims 1, 5, 7-11, and 28-34.

### IV. STATUS OF AMENDMENTS

Original claims 1-27 were filed on April 4, 2001. A Non-Final Office Action rejecting claims 1-27 was mailed on March 10, 2005, and an Amendment responsive thereto was filed on June 10, 2005, amending claims 1, 2, 11, 22, and requesting reconsideration of the rejected claims.

A Final Office Action rejecting claims 1-27 was mailed on October 5, 2005. A Notice of Appeal was filed November 24, 2005, appealing the Final Office Action, and an After-Final Response was filed January 19, 2006, including a Declaration under 37 C.F.R. § 1.131 by Appellant showing invention by the Appellant prior to the effective date of the prior art cited in the Final Office Action of October 5, 2005. An Advisory Action was mailed February 8, 2006, indicating that Appellant's § 1.131 Declaration would not be entered.

A Request for Pre-Appeal Brief Panel Review was then filed by Appellants on February 21, 2006. A Decision on Panel Review was mailed April 18, 2006, allowing the matter to proceed

to the Board of Patent Appeals and Interferences. An Appeal Brief was filed May 5, 2006, and a subsequent compliant Appeal Brief was filed November 22, 2006. An Examiner's Answer was mailed May 17, 2007. A Decision by the Board of Patent Appeals and Interferences was issued on June 24, 2008, reversing the Examiner's rejection of claims 1-27.

Subsequently, a new Non-final Office Action was mailed September 16, 2008, rejecting claims 1-27 under new references, and an Amendment responsive thereto was filed on December 16, 2008, amending claim 1, cancelling claims 2-4, 6, and 12-27, adding claims 28-34, and requesting reconsideration and allowance of the pending claims.

A Final Office Action was mailed March 12, 2009, rejecting claims 1, 5, 7-11, and 28-34. An Amendment responsive thereto was filed on May 8, 2009, correcting the spelling of the term "demultiplexer" in claims 1 and 28 with no intention of changing or narrowing the scope of the claims.

An Interview was also conducted on May 8, 2009, but Appellant and the Examiner did not reach an agreement with respect to the claims.

A Non-final Office Action was subsequently mailed May 20, 2009, rejecting claims 1, 5, 7-11, and 28-34 under yet another new reference. An Amendment responsive thereto was filed on August 20, 2009, requesting reconsideration of the rejected claims.

Subsequently, another Non-final Office Action was mailed November 24, 2009, rejecting claims 1, 5, 7-11, and 28-34.

Subsequently, a Non-Final Office Action rejecting claims 1, 4, 5, 7, and 10-13, was mailed on July 29, 2009, and an Amendment responsive thereto was filed on October 27, 2009, requesting reconsideration of the rejected claims.

A Notice of Appeal was then filed by Appellants on February 24, 2010, and this Appeal Brief is in furtherance of the Notice of Appeal. Further, Appellant has separately provided herewith a petition to revive the application for unintentional abandonment.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following description is for illustrative purposes and is not intended to limit the scope of the invention.

V.A. Independent Claim 1

Independent claim 1 recites: *[a] television signal processing and recording system for handling both digital and analog video signals [108] (see, FIGS. 2-5; page 5, lines 17 through 19; page 7, line 21 through page 8, line 4), said system comprising:*

*an analog signal path comprising an analog tuner [101], a video decoder [109] for converting an analog signal to a digital signal, and an encoder [105] for compressing said digital signal output by said video decoder (see, FIGS. 2-5; page 5, lines 19 through 20; page 8, lines 7 through 16);*

*a digital signal path comprising a digital tuner [102] and a demultiplexer [103] (see, FIGS. 2-5; page 5, lines 20 through 21; page 5, lines 24 through 26; page 8, lines 17 through 22);*  
*and*

*a connection for routing said compressed digital signal from said encoder [101] of said analog signal path to said demultiplexer (see, FIGS. 2-5; page 5, lines 21 through 24; page 8, lines 19 through 22);*

*wherein said demultiplexer [103] outputs a demultiplexed signal to either a decoder [104] with output to a display device [e.g., 106] or a digital data storage device [e.g., 107] (see, FIGS. 2-5; page 5, lines 24 through 26; page 8, lines 23 through 27).*

V.B. Independent Claim 28

Independent claim 28 recites: *[a] method for handling both digital and analog video signals [108] (see, FIGS. 2-5; page 5, lines 17 through 19; page 7, line 21 through page 8, line 4), said method comprising:*

*processing analog signals, when input, in an analog signal path comprising an analog tuner [101], a video decoder [109] for converting an analog signal to a digital signal, and an encoder [e.g., 105] for compressing said digital signal output by said video decoder (see, FIGS. 2-5; page 5, lines 19 through 20; page 8, lines 7 through 16);*

*processing digital signals, when input, in a digital signal path comprising a digital tuner [102] and a demultiplexer [103] (see, FIGS. 2-5; page 5, lines 20 through 21; page 5, lines 24 through 26; page 8, lines 17 through 22);*

*routing said compressed digital signal from said encoder [101] of said analog signal path to said demultiplexer [103] (see, FIGS. 2-5; page 5, lines 21 through 24; page 8, lines 19 through 22); and,*

*with said demultiplexer, selectively outputting a signal to either a decoder with output to a display device [e.g., 106] or a digital data storage device [e.g., 107] (see, FIGS. 2-5; page 5, lines 24 through 26; page 8, lines 23 through 27).*

## VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The issues presented for consideration in this appeal, with separate arguments as noted in the following sections, are as follows:

(1) Whether the Examiner erred in rejecting claims 1 and 28 under 35 U.S.C. § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter that the Appellant regards as the invention.

(2) Whether the Examiner erred in rejecting claims 1, 5, 7-11, and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over what is referred to Applicant's Admitted Prior Art ("AAPA") in view of U.S. Pat. No. 6,233,389 to Barton et al. ("Barton").

These issues are discussed in the following section.

## VII. ARGUMENT

### VII.A. Introduction

"[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The Examiner has failed to meet this burden.

In the Office Action of November 24, 2009, the Examiner erred in rejecting claims 1 and 28 under 35 U.S.C. § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter that the Appellant regards as the invention.

Further, in the Office Action, the Examiner erred in rejecting claims 1, 5, 7-11, and 28-34 under 35 U.S.C. § 103(a) as allegedly being unpatentable over what is referred to as Applicant's Admitted Prior Art ("AAPA") in view of U.S. Pat. No. 6,233,389 to Barton et al. ("Barton").

Because a *prima facie* case of unpatentability has not been established under 35 U.S.C. § 112, second paragraph, for claims 1 and 28, or under 35 U.S.C. § 103(a) for claims 1, 5, 7-11, and 28-34, the § 112 and § 103 rejections of these claims are in error and should be reversed.

### VII.B. The Office Action's § 112, second paragraph, rejection of claims 1 and 28 is erroneous.

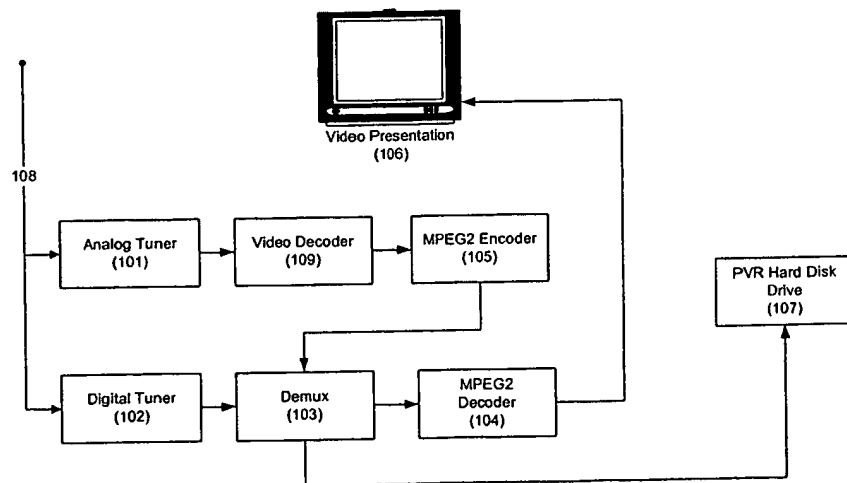
Claim 1 recites: *[a] television signal processing and recording system for handling both digital and analog video signals [108], said system comprising:*

*an analog signal path comprising an analog tuner [101], a video decoder [109] for converting an analog signal to a digital signal, and an encoder [105] for compressing said digital signal output by said video decoder;*

*a digital signal path comprising a digital tuner [102] and a demultiplexer [103]; and  
a connection for routing said compressed digital signal from said encoder [101] of said analog signal path to said demultiplexer [103];*

*wherein said demultiplexer [103] outputs a demultiplexed signal to either a decoder [104] with output to a display device [106] or a digital data storage device [107].*

Appellant's FIG. 2, is reproduced below to aid in understanding the scope of claim 1 but is not intended to limit the scope of the claim.



**Fig. 2**

In the Office Action, the Examiner rejects claim 1 under 35 U.S.C. § 112, second paragraph, arguing that “[t]he term ‘demultiplexer’ in claim[] 1 is used by the claim to mean ‘a switch’, while the accepted meaning is ‘an electronic device that separates a multiplexed signal into its component parts.’” (Office Action, p. 5, l. 22 – p. 6, l. 1).



The Office Action shows that Merriam-Webster defines a demultiplexer as “an electronic device that separates a multiplex signal into its component parts” and a switch as “a device for making, breaking, or changing the connections in an electrical circuit.” (Office Action, p. 6, ll. 7-11).

The Office Action then cites Appellant’s Specification, which states in relevant part:

The compressed signal is then routed through a demultiplexer (103). From the demultiplexer (103), the compressed signal, which was originally received as an analog signal, can be recorded on a hard disk drive (107) or other digital data storage medium. Alternatively, the signal can be decompressed with an MPEG2 decoder (104) and output to a television set (106) for display.

(Office Action, p. 6, ll. 14-18, citing Appellant’s Specification, p. 8, ll. 12-16).

Stating that “[i]t is unclear from a reading of the specification and the claims as to whether the claimed demultiplexer is used to mean ‘a switch’ or ‘a demultiplexer’,” the Office Action concludes that the term “multiplexer” is indefinite, “because the specification does not clearly redefine the term” and “the term demultiplexer has been used in the claim that [*sic*] is inconsistent with the accepted definition.” (Office Action, p. 5, l. 22 - p. 6, l. 6 and p. 6, ll. 19 and 20). But this conclusion is incorrect.

As the Panel is aware, during examination, the claims must be interpreted as broadly as their terms reasonably allow. *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1369, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004). This means that the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

Cited in the Office Action, *Process Control Corp. v. HydReclaim Corp.*, teaches that “while ... a patentee can act as his own lexicographer to specifically define terms of a claim contrary to their ordinary meaning,” terms of a claim cannot be construed contrary to their ordinary meaning without a clear redefinition in the specification sufficient “to put a reasonable competitor or one reasonably skilled in the art on notice that the patentee intended to so redefine that claim term.” *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

The Office Action asserts “the specification does not clearly redefine the term [demultiplexer].” (Office Action, p. 6, ll. 1-2). Appellant agrees. But in so asserting, the Office Action effectively undermines its own argument that the term “demultiplexer” should be given a meaning different than its plain meaning.

As taught in *Process Control Corp. v. HydReclaim Corp.*, absent a clear redefinition within the specification sufficient “to put a reasonable competitor or one reasonably skilled in the art on notice that the patentee intended to so redefine that claim term,” the term “demultiplexer” should be given its plain meaning. And Appellant agrees with the Office Action that a demultiplexer is generally defined in a variety of arts as “an electronic device that separates a multiplex signal into its component parts.” (<http://www.merriam-webster.com/dictionary/demultiplexer>).

The Office Action seems to conclude that in the analog signal path, because the compressed signal from the demultiplexer (103) “can be recorded on a hard disk drive (107) or other digital data storage medium,” or alternatively “be decompressed with an MPEG2 decoder (104) and output to a television set (106) for display,” the demultiplexer (103) must perform only a switching function and not a demultiplexing function, as understood by one of ordinary skill in the art. (Office Action, p. 6, ll. 14-20).

But the Office Action fails to explain why this must be the case—why, within the analog signal path, the compressed signal from the demultiplexer (103) cannot be recorded on the hard disk drive (107) or, alternatively, decompressed with an MPEG2 decoder (104) and output to a television set (106).

The Office Action’s misconstrual of the term “demultiplexer” as “a switch” particularly falls apart in reviewing additional portions of Appellant’s Specification. For instance, paragraph [0046] of Appellant’s Specification, in describing the digital signal path shown in FIG. 2, reproduced above, states:

A digital signal output by the tuner (102) is routed into the same demultiplexer (103) that handles signals from the analog tuner (101) that have been converted to digital and compressed.

After demultiplexing, the digital signal, which was compressed before broadcasting, can be sent to and recorded on a hard disk drive (107) or other digital recording medium. Alternatively, the signal can be decompressed by an MPEG2 decoder (104). The decompressed digital signal can then be sent to a television set (106) for display.

(Appellant's Specification, page 8, lines 23-27 (emphasis added)).

Further, far from clearly redefining the term demultiplexing, Appellant's Specification adheres to the plain and conventional meaning of demultiplexing, stating: "Conventionally, the digital signal output by the tuner (102) is demultiplexed by a demultiplexer (103)." (Appellant's Specification, p. 4, ll. 22-23; *see also* Appellant's Specification, p. 5, ll. 24-27 "A demultiplexer is used for demultiplexing the compressed digital signal when the compressed digital signal is routed to the digital signal path.")

Because Appellant has not clearly redefined the term demultiplexer in Appellant's Specification, and in fact, because Appellant's use of the term demultiplex in the Specification is consistent with the conventional use of the term, the term "multiplexer" recited by claim 1 should be given its plain meaning and the Examiner's rejection of claims 1 and 28 under 35 U.S.C. § 112, second paragraph, should be reversed.

VII.C. The Examiner erred in rejecting claims 1, 5, 7-11, and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Barton.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *see also* MPEP 2143.03.

Again, claim 1 recites: *[a] television signal processing and recording system for handling both digital and analog video signals, said system comprising:*

*an analog signal path comprising an analog tuner, a video decoder for converting an analog signal to a digital signal, and an encoder for compressing said digital signal output by said video decoder;*

*a digital signal path comprising a digital tuner and a demultiplexer; and*

*a connection for routing said compressed digital signal from said encoder of said analog signal path to said demultiplexer;*

*wherein said demultiplexer outputs a demultiplexed signal to either a decoder with output to a display device or a digital data storage device.*

AAPA and Barton both fail to disclose or suggest these features. AAPA discloses “a conventional system in which both digital and analog television signals are processed for use by a television set or monitor and also for recording on [a] hard disk drive.” (Appellant’s Specification, p. 3, l. 27 – p. 4, l. 1). But the Office Action admits that “AAPA fails to disclose the connection between the encoder in the analog signal path and the demultiplexer in the digital signal path.” (Office Action, p. 4, ll. 9-10).

The Office Action relies then on Barton. Barton discloses “[a] multimedia time warping system” having an Input Section 101, a Media Switch 102, and an Output Section 103. (Barton, col. 3, ll. 18-20 and 30-32). But Barton fails to remedy the deficiencies of AAPA. In fact, the Office Action admits that “the media switch of Barton is not called a demultiplexer nor does it separate a signal into multiple signals.” (Office Action, p. 5, ll. 5-7). However, relying on the misconstrual of the term “demultiplexer” as “a switch”, as addressed above, the Office Action concludes that “the media switch of Barton reads on and performs the same functions as the claimed demultiplexer as defined by [Appellant’s] Specification.” (Office Action, p. 5, ll. 7-8).

But this argument is entirely based on the misunderstanding, addressed above, that the claimed demultiplexer is no more than a switch. When one properly construes the term “demultiplexer” as would one of skill in the art, it becomes inescapable that Barton does not disclose or suggest a demultiplexer. Rather, as cited in the Action, Barton merely teaches a “media switch” (102/701). Thus, Barton only becomes relevant to Applicant’s claims if, as the Action attempts, one inappropriately redefines the term “demultiplexer” to mean switch.

Consequently, if we use the perspective of one skilled in the art, Barton is entirely inapplicable to the claimed subject matter. As the Office Action admits, Barton does not

disclose or suggest the claimed demultiplexer and, therefore, cannot disclose or suggest, in combination with the AAPA “*a connection for routing said compressed digital signal from said encoder of said analog signal path to said demultiplexer,*” as recited by claim 1.

Thus AAPA and Barton, whether alone or in combination, fail to disclose each and every feature recited by claim 1, and a *prima facie* case of obviousness has not been established.

For reasons similar to those presented above, a *prima facie* case of obviousness remains absent with regard to independent claim 28.

Dependent claims 5 and 7-11, and 29-34, which depend from claims 1 and 28, respectively, are allowable by virtue of their dependency upon allowable claims 1 and 28 as well as for their separately recited, patentably distinct features.

Therefore, Appellants respectfully requests reversal of the rejection of claims 1, 5, 7-11, and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Barton.

#### VIII. CLAIMS

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

#### IX. EVIDENCE

No evidence pursuant to §§ 1.130, 1.131, or 1.132, or additional evidence entered by or relied upon by the Examiner is being submitted.

#### X. RELATED PROCEEDINGS

No related proceedings are referenced in section II above, or copies of decisions in related proceedings are not provided.

#### XI. CONCLUSION

The Examiner has failed to meet the burden of presenting a *prima facie* case of unpatentability.

In the Office Action of November 24, 2009, the Examiner erred in rejecting claims 1 and 28 under 35 U.S.C. § 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter that the Appellant regards as the invention. But because Appellant has not clearly redefined the term demultiplexer in Appellant's Specification, and in fact, because Appellant's use of the term demultiplex in the Specification is consistent with the conventional use of the term, the term "multiplexer" recited by claims 1 and 28 should be given its plain meaning.

Thus, the Examiner's rejection of claims 1 and 28 under 35 U.S.C. § 112, second paragraph, should be reversed.

Further, in the Office Action, the Examiner erred in rejecting claims 1, 5, 7-11, and 28-34 under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Barton. But AAPA and Barton, whether alone or in combination, fail to disclose each and every feature recited by claims 1, 5, 7-11, and 28-34. Accordingly, a *prima facie* case of obviousness has not been established for these claims.

Thus, reversal of the Examiner's rejections of claims 1, 5, 7-11, and 28-34 under 35 U.S.C. § 103(a) over AAPA in view of Barton should be also reversed.

Dated: October 6, 2010

Respectfully submitted,

By 

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## **APPENDIX A - CLAIMS**

1. A television signal processing and recording system for handling both digital and analog video signals, said system comprising:

an analog signal path comprising an analog tuner, a video decoder for converting an analog signal to a digital signal, and an encoder for compressing said digital signal output by said video decoder;

a digital signal path comprising a digital tuner and a demultiplexer; and

a connection for routing said compressed digital signal from said encoder of said analog signal path to said demultiplexer;

wherein said demultiplexer outputs a demultiplexed signal to either a decoder with output to a display device or a digital data storage device.

2-4. (Cancelled)

5. The system of claim 1, wherein said digital data storage device is a hard disk drive.

6. (Cancelled)

7. The system of claim 1, wherein said encoder is an MPEG2 encoder.

8. The system of claim 1, wherein said decoder is an MPEG2 decoder.

9. The system of claim 1, wherein said video decoder, encoder, connection and decoder are incorporated in a set-top box.

10. The system of claim 1, wherein said digital data storage device is incorporated in a personal video recorder.

11. The system of claim 1, wherein said video decoder, encoder, connection, decoder and digital data storage device are incorporated in a single set-top unit.

12-27. (Cancelled)

28. A method for handling both digital and analog video signals, said method comprising:  
processing analog signals, when input, in an analog signal path comprising an analog tuner, a video decoder for converting an analog signal to a digital signal, and an encoder for compressing said digital signal output by said video decoder;

processing digital signals, when input, in a digital signal path comprising a digital tuner and a demultiplexer;

routing said compressed digital signal from said encoder of said analog signal path to said demultiplexer; and,

with said demultiplexer, selectively outputting a signal to either a decoder with output to a display device or a digital data storage device.



29. The method of claim 28, wherein said digital data storage device is a hard disk drive.
30. The method of claim 28, wherein said encoder is an MPEG2 encoder.
31. The method of claim 28, wherein said decoder is an MPEG2 decoder.
32. The method of claim 28, wherein said video decoder, encoder, connection and decoder are incorporated in a set-top box.
33. The method of claim 28, wherein said digital data storage device is incorporated in a personal video recorder.
34. The method of claim 28, wherein said video decoder, encoder, connection, decoder and digital data storage device are incorporated in a single set-top unit.

**APPENDIX B – ADDITIONAL EVIDENCE**

None.

### **APPENDIX C – RELATED PROCEEDINGS**

None.